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Data paper

Tree diversity of the Dja Faunal Reserve, southeastern Cameroon

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Abstract

The Dja Faunal Reserve located in southeastern Cameroon represents the largest and best protected rainforest patch in Cameroon. Here we make available a dataset on the inventory of tree species collected across the Dja. For this study nine 5 km long and 5 m wide transects were installed. All species with a diameter at breast height greater than 10 cm were recorded, identified and measured. A total of 11546 individuals were recorded, corresponding to a total of 312 species identified with 60 genera containing unidentified taxa. Of the 54 identified families Fabaceae, Rubiaceae and Malvaceae were the most species rich, whereas Fabaceae, Phyllantaceae and Olacaceae were the most abundant. Finally, *Tabernaemontana crassa* was the most abundant species across the Reserve. This dataset provides a unique insight into the tree diversity of the Dja Faunal Reserve and is now publically available and usable.

Keywords

Africa, diversity, transect, Dja Faunal Reserve, conservation, species inventory

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Introduction

Tropical rainforests are among the most diverse plant communities worldwide and contain more than 50% of the Earth's species diversity (Parmentier et al. 2007). Rain forests are remarkable by the diversity of tree species they contain, in places reaching up to 300 different species within a single hectare of inventoried forest (Valencia et al. 1994). Yet inventory of species in tropical countries remains challenging (Campbell and Hammond 1989). The Republic of Cameroon, situated on the Atlantic Coast in the Gulf of Guinea, covers 475440 km² and has such a great diversity of habitats that it is often compared to "a small Africa".

Although Cameroon has been better explored by botanists than most of other Central African countries (Letouzey 1968), its flora remains incompletely known, and several new species are described or newly recorded every year (e.g. Cheek 2009, Droissart et al. 2009, Lachenaud and Séné 2012, Sonké et al. 2009, Lachenaud et al. 2013). This is partly due to the high botanical diversity of the country (e.g. Kenfack et al. 2007) which includes many endemics (Onana 2011). In addition, botanical efforts have tended to focus on some specific sites (e.g. Mt Cameroon, Bakossi mountains, Campo Ma'an National Park; Cheek et al. 2004, Cable and Cheek 1998, Tchouto et al. 2006), leaving other areas almost unexplored, especially in the west and southeast (Onana 2011, Droissart et al. 2012). The present contribution publishes the results of an inventory made some years ago in the Dja Faunal Reserve, a UNESCO World Heritage Site, located in southeastern Cameroon. Its altitude is between 500 and 700 m and covers an area of 526,000 ha mainly classified as moist evergreen tropical forests (Letouzey 1985) and belongs to the Guineo-congolian phytochoria of (White 1979). It is bounded on three-quarters of its periphery by a natural barrier that is the Dja river. The reserve also belongs to the TRIDOM forest block that encompasses several other major reserves such as Odzala National Parc in the République du Congo and the Minkébé Natinal Parc in Gabon. This region is characterized by a low collection density of botanical specimens and are thus fragmentarily known (Valkenburg et al. 1998, Onana 2011, Droissart et al. 2012).

The present dataset was available only under printed form (Sonké 2004, Sonké 1998). Here we make it available open access under electronic form. This dataset has been used to assess the role of dispersal and niche differentiation in explaining species distribution across the reserve (Hardy and Sonké 2004).

Project description

Title: Tree Inventory of the Dja Faunal Reserve, South Cameroon.

Personel: Bonaventure Sonké

Study area description: The dataset contains tree inventory of nine 5 km long 5 meters wide transects across the Dja Faunal Reserve. The Dja Forest Reserve is situated at 2°50 – 3°30 N and 12°20 – 13°40 E in southeastern Cameroon, bounded on three sides by the Dja River (Fig. 1), a major tributary of the Congo river, within the area known as the southern plateau. Most of the Dja Faunal Reserve is situated at 600–700 m above the sea level and covers 526,000 ha making it one of the largest and best protected areas of lowland rainforest across tropical Africa. The monthly average temperature lies between 23.5 °C and 24.5 °C and the annual rainfall between 1180 mm and 2350 mm. There are four major vegetation types in the Dja: primary *terra firme* primary forest (74% of total individuals collected occurring in this vegetation type); (ii) secondary forest (8% of total individuals); (iii) gaps (4% of total individuals). Finally, two hydromorphic types were defined as (iv) swamps (11%) and (v) flooded forest (3%). The different vegetation types across each transect are provided in Suppl. material 2. Transects were placed at the following coordinates:

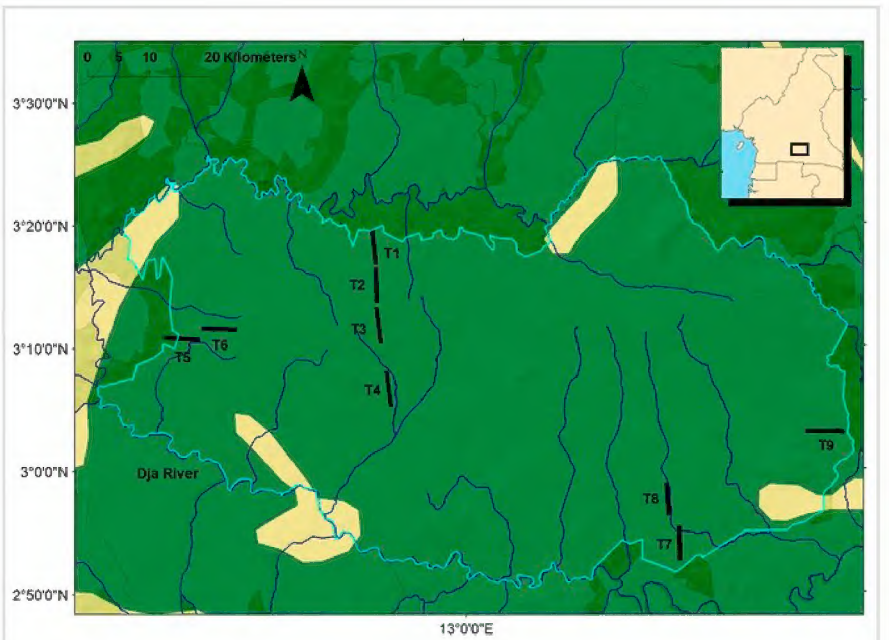

Figure 1.

The Dja Faunal Reserve, South Cameroon, with the location of the 9 transects (T1-T9). Dark blue lines represent rivers. Light blue lines represent the delimitation of the Dja Faunal Reserve. Yellow patches are degraded vegetation while green and dark green patches represent tropical rain forest. Finer scale vegetation patterns are note represented here. Vegetation types based on Guillaumet, Chevillotte & Valton (IRD; MNHN).

T1: start: 12.8573; 3.3243; end: 12.8622; 3.2824

T2: start: 12.8637; 3.2303; end: 12.8622; 3.2726

T3: start: 12.8695; 3.1752; end: 12.8636; 3.2183

T4: start: 12.8846; 3.0895; end: 12.8787; 3.1325

T5: start: 12.5367; 3.1816; end: 12.5866; 3.1787

T6: start: 12.5958; 3.1936; end: 12.6447; 3.1925

T7: start: 13.3293; 2.9203; end: 13.3301; 2.8792

T8: start: 13.3105; 2.9787; end: 13.3133; 2.9403

T9: start: 13.5287; 3.0510; end: 13.5817; 3.0498

There are local Baka people living in the forest practicing subsistence hunting and gathering, thus there is some minimal human pressure on the forest. The forest has its full compliment of large animals, including Western Lowland Gorillas (*Gorilla gorilla gorilla*) and African forest elephants (*Loxodonto Africana cyclotis*) (Dupain et al. 2004).

Funding: Collection of the data in the field was funded by the European Union project ECOFAC.

Sampling methods

Study extent: The dataset was collected between August 1993 and August 1995.

Sampling description: A line transect approach was chosen to sample forest diversity because it covers the heterogeneity of the forest better than a square plot. We used standardized methods to install the transects, identify, map, measure and re-measure the trees (Baker et al. 2004). Each transect line was 5 meters wide and 5 km long. A total of 9 such transects were done at different places across the reserve Fig. 1. All trees ≥ 10 cm dbh (diameter at breast height, 1.3 m or above all deformities, notable buttresses, if present), were identified, mapped, individually numbered with an aluminium tag and nail, and measured with a diameter tape, or estimated if this the correct point of measurement was not possible to reach. Trees were identified up to species level, and in some cases just up to genus level. Voucher specimens were collected and deposited in different herbaria (mainly YA) and in case of any doubt, supplementary material was collected for further identifications.

Quality control: The present dataset was updated to match the APG III classification of angiosperm families (APGIII 2003) and all species names were checked for validity (spelling and authorship) against online databses (http://tnrs.iplantcollaborative.org/index.html, http://ipni.org; http://plants.jstor.org/; http://www.ville-ge.ch/musinfo/bd/cjb/africa/recherche.php).

Step description: The dataset presented here was collected over a period of three years.

Geographic coverage

Description: Data was collected in 9 different sites across the reserve as illustrated in Fig. 1.

Coordinates: 13.666667 and 2.833333 Latitude; 12.333333 and 3.5 Longitude.

Taxonomic coverage

Description: The dataset contains a total of 11546 tagged individuals representing 312 total taxa identified to species level (Table 1) belonging to 54 families and 213 genera (a few photos of selected species are provided in Figs 2, 3). For 60 genera some individuals remained unidentified (marked as sp.). This is mainly related to the poorly known taxonomy of those genera or lack of appropriate material (e.g. flowers) to provide a definite determination. The raw data is available in Suppl. material 1.

Table 1.

List of identified species collected in the Dja Faunal Reserve.

Species_name	Author_name	APGIII_family_name
Afzelia bella	Harms	Fabaceae
Afzelia bipindensis	Harms	Fabaceae
Aidia micrantha	(K. Schum.) Bullock ex F. White	Rubiaceae
Albizia adianthifolia	(Schumach.) W. Wight	Fabaceae
Albizia ferruginea	(Guill. & Perr.) Benth.	Fabaceae
Albizia glaberrima	Benth.	Fabaceae
Albizia gummifera	(J.F. Gmel.) C.A. Sm.	Fabaceae
Albizia zygia	J.F. Macbr.	Fabaceae
Allanblackia floribunda	Oliv.	Clusiaceae
Allanblackia gabonensis	Bamps	Clusiaceae
Allophylus africanus	P. Beauv.	Sapindaceae
Alstonia boonei	De Wild.	Apocynaceae
Amphimas ferrugineus	Pierre ex Harms	Fabaceae
Amphimas pterocarpoides	Harms	Fabaceae
Angylocalyx pynaertii	De Wild.	Fabaceae
Annickia affinis	(Exell) Versteegh & Sosef	Annonaceae
Anonidium mannii	Engl. & Diels	Annonaceae
Anopyxis klaineana	(Pierre) Engl.	Rhizophoraceae
Anthonotha cladantha	(Harms) J. Léonard	Fabaceae
Anthonotha fragrans	(Baker f.) Exell & Hillc.	Fabaceae
Anthonotha macrophylla	P. Beauv.	Fabaceae
Antidesma laciniatum	Aubrév.	Phyllanthaceae

Antidesma membranaceum	Müll. Arg.	Phyllanthaceae
Antidesma venosum	E. Mey. ex Tul.	Phyllanthaceae
Antrocaryon klaineanum	Pierre	Anacardiaceae
Antrocaryon micraster	A. Chev. & Guillaumin	Anacardiaceae
Aoranthe cladantha	(K. Schum.) Somers	Rubiaceae
Aulacocalyx jasminiflora	Hook. f.	Rubiaceae
Autranella congolensis	(De Wild.) A. Chev.	Sapotaceae
Baillonella toxisperma	Pierre	Sapotaceae
Balanites wilsoniana	Dawe & Sprague	Zygophyllaceae
Barteria nigritana subsp. fistulosa	(Mast.) Sleumer	Passifloraceae
Belonophora coriacea	Hoyle	Rubiaceae
Bertiera racemosa	(G. Don) K. Schum.	Rubiaceae
Blighia sapida	K.D. Koenig	Sapindaceae
Blighia welwitschii	(Hiern) Radlk.	Sapindaceae
Bombax brevicuspe	Sprague	Malvaceae
Bombax buonopozense	P. Beauv.	Malvaceae
Brenania brieyi	(De Wild.) Petit	Rubiaceae
Bridelia grandis	Pierre ex Hutch.	Phyllanthaceae
Bridelia micrantha	(Hochst.) Baill.	Phyllanthaceae
Buchnerodendron speciosum	Gürke	Achariaceae
Calpocalyx dinklagei	Harms	Fabaceae
Canarium schweinfurthii	Engl.	Burseraceae
Carapa procera	DC.	Meliaceae
Casearia barteri	Mast.	Salicaceae
Cavacoa quintasii	(Pax & K. Hoffm.) Leonard	Euphorbiaceae
Ceiba pentandra	(L.) Gaertn.	Malvaceae
Celtis adolfi-friderici	Engl.	Cannabaceae
Celtis gomphophylla	Baker	Cannabaceae
Celtis tessmannii	Rendle	Cannabaceae
Celtis zenkeri	Engl.	Cannabaceae
Centroplacus glaucinus	Pierre	Centroplacaceae
Chlamydocola chlamydantha	(K. Schum.) M. Bodard	Malvaceae
Chrysophyllum africanum	A. DC.	Sapotaceae
Chrysophyllum boukokoense	(Aubrév. & Pellegr.) L. Gaut.	Sapotaceae
Chrysophyllum lacourtianum	De Wild.	Sapotaceae
Chrysophyllum pruniforme	Pierre ex Engl.	Sapotaceae
Chytranthus atroviolaceus	Baker f. ex Hutch. & Dalziel	Sapindaceae
Chytranthus macrobotrys	(Gilg) Exell & Mendonça	Sapindaceae
Clausena anisata	(Willd.) Hook. f. ex Benth.	Rutaceae
Cleistopholis glauca	Pierre ex Engl. & Diels	Annonaceae
Cleistopholis patens	(Benth.) Engl. & Diels	Annonaceae
Coelocaryon botryoides	Vermoesen	Myristicaceae
Coelocaryon preussii	Warb.	Myristicaceae

Cola acuminata	(P. Beauv.) Schott & Endl.	Malvaceae
Cola altissima	Engl.	Malvaceae
Cola ballayi	Cornu ex Heckel	Malvaceae
Cola flavo-velutina	K. Schum.	Malvaceae
Cola lateritia	K. Schum.	Malvaceae
Cola verticillata	(Thonn.) Stapf ex A. Chev.	Malvaceae
Cordia aurantiaca	Baker	Boraginaceae
Cordia platythyrsa	Baker	Boraginaceae
Corynanthe pachyceras	K. Schum.	Rubiaceae
Croton oligandrus	Pierre ex Hutch.	Euphorbiaceae
Crotonogyne preussii	Pax	Euphorbiaceae
Cuviera cuvieroides	(Wernham) Onana	Rubiaceae
Cylicodiscus gabunensis	Harms	Fabaceae
Dacryodes buettneri	(Engl.) H.J. Lam	Burseraceae
Dacryodes edulis	(G. Don) H.J. Lam	Burseraceae
Dacryodes klaineana	(Pierre) H.J. Lam	Burseraceae
Desbordesia glaucescens	(Engl.) Tiegh.	Irvingiaceae
Desplatsia chrysochlamys	(Mildbr. & Burret) Mildbr. & Burret	Malvaceae
Desplatsia dewevrei	(De Wild. & T. Durand) Burret	Malvaceae
Detarium macrocarpum	Harms	Fabaceae
Dialium bipindense	Harms	Fabaceae
Dialium dinklagei	Harms	Fabaceae
Dialium guineense	Willd.	Fabaceae
Dialium zenkeri	Harms	Fabaceae
Dichostemma glaucescens	Pierre	Euphorbiaceae
Diospyros bipindensis	Gürke	Ebenaceae
Diospyros cinnabarina	(Gürke) F. White	Ebenaceae
Diospyros conocarpa	Gürke & K. Schum.	Ebenaceae
Diospyros crassiflora	Hiern	Ebenaceae
Diospyros hoyleana	F. White	Ebenaceae
Diospyros suaveolens	Gürke	Ebenaceae
Discoglypremna caloneura	(Pax) Prain	Euphorbiaceae
Distemonanthus benthamianus	Baill.	Fabaceae
Dracaena arborea	(Willd.) Link	Asparagaceae
Drypetes aframensis	Hutch.	Putranjivaceae
Drypetes africana	Vahl	Putranjivaceae
Drypetes afzelii	(Pax) Hutch.	Putranjivaceae
Drypetes capillipes	(Pax) Pax & K. Hoffm.	Putranjivaceae
Drypetes chevalieri	Beille	Putranjivaceae
Drypetes gossweileri	S. Moore	Putranjivaceae
Drypetes klainei	Pierre ex Pax	Putranjivaceae
Drypetes laciniata	(Pax) Hutch.	Putranjivaceae
Drypetes molunduana	Pax & K. Hoffm.	Putranjivaceae

Drypetes paxii	Hutch.	Putranjivaceae
Drypetes staudtii	(Pax) Hutch.	Putranjivaceae
Duboscia macrocarpa	A. Chev.	Malvaceae
Duguetia staudtii	(Engl. & Diels) Chatrou	Annonaceae
Elaeophorbia grandifolia	(Haw.) Croizat	Euphorbiaceae
Entada gigas	(L.) Fawc. & Rendle	Fabaceae
Entandrophragma angolense	(Welw. ex C. DC.) C. DC.	Meliaceae
Entandrophragma candollei	Harms	Meliaceae
Entandrophragma cylindricum	(Sprague) Sprague	Meliaceae
Eribroma oblongum	(Mast.) Pierre ex A. Chev.	Malvaceae
Eriocoelum macrocarpum	Gilg ex Radlk.	Sapindaceae
Erismadelphus exsul	Mildbr.	Vochysiaceae
Erythrophleum suaveolens	(Guill. & Perr.) Brenan	Fabaceae
Fernandoa adolphi-friderici	(Gilg & Mildbr.) Heine	Bignoniaceae
Ficus exasperata	Vahl	Moraceae
Ficus mucuso	Welw. ex Ficalho	Moraceae
Ficus sur	Forssk.	Moraceae
Funtumia africana	(Benth.) Stapf	Apocynaceae
Funtumia elastica	(Preuss) Stapf	Apocynaceae
Garcinia kola	Heckel	Clusiaceae
Garcinia gnetoides	Hutch. & Dalziel	Clusiaceae
Garcinia mannii	Oliv.	Clusiaceae
Garcinia punctata	Oliv.	Clusiaceae
Garcinia smeathmannii	(Planch. & Triana) Oliv.	Clusiaceae
Gilbertiodendron dewevrei	(De Wild.) J. Léonard	Fabaceae
Glyphaea brevis	(Spreng.) Monach.	Malvaceae
Gossweilerodendron joveri	Normand ex Aubrév.	Fabaceae
Greenwayodendron suaveolens	(Engl. & Diels) Verdc.	Annonaceae
Grewia brunnea	K. Schum.	Malvaceae
Grewia coriacea	Mast.	Malvaceae
Grewia oligoneura	Sprague	Malvaceae
Guarea cedrata	(A. Chev.) Pellegr.	Meliaceae
Guarea thompsonii	Sprague & Hutch.	Meliaceae
Harungana madagascariensis	Lam. ex Poir.	Hypericaceae
Heinsia crinita	(Afzel.) G. Taylor	Rubiaceae
Heisteria trillesiana	Pierre	Olacaceae
Heisteria zimmereri	Engl.	Olacaceae
Hexalobus crispiflorus	A. Rich.	Annonaceae
Homalium discophylum	Jacq.	Salicaceae
Homalium le-testui	Pellegr.	Salicaceae
Hylodendron gabunense	Taub.	Fabaceae
Hymenocardia lyrata	Tul.	Phyllanthaceae
Hymenostegia afzelii	(Oliv.) Harms	Fabaceae

Irvingia excelsa	Mildbr.	Irvingiaceae
Irvingia gabonensis	(Aubry-Lecomte ex O'Rorke) Baill.	Irvingiaceae
Irvingia grandifolia	(Engl.) Engl.	Irvingiaceae
Irvingia robur	Mildbr.	Irvingiaceae
Keayodendron bridelioides	(Gilg & Mildbr. ex Hutch. & Dalziel) Leandri	Phyllanthaceae
Khaya ivorensis	A. Chev.	Meliaceae
Klaineanthus gaboniae	Pierre ex Prain	Euphorbiaceae
Klainedoxa gabonensis	Pierre ex Engl.	Irvingiaceae
Klainedoxa microphylla	A.H. Gentry	Irvingiaceae
Lannea welwitschii	(Hiern) Engl.	Anacardiaceae
Lasiodiscus mannii	Hook. f.	Rhamnaceae
Lecaniodiscus cupanioides	Planch. ex Benth.	Sapindaceae
Lepidobotrys staudtii	Engl.	Lepidobotryaceae
Leptactina involucrata	Hook. f.	Rubiaceae
Lindackeria echinata	C. Presl	Achariaceae
Lovoa trichilioides	Harms	Meliaceae
Macaranga barteri	Müll. Arg.	Euphorbiaceae
Macaranga occidentalis	(Müll. Arg.) Müll. Arg.	Euphorbiaceae
Macaranga spinosa	Müll. Arg.	Euphorbiaceae
Maesobotrya klaineana	(Pierre) J. Léonard	Phyllanthaceae
Maesopsis eminii	Engl.	Rhamnaceae
Mammea africana	G. Don	Calophyllaceae
Manilkara letouzei	Aubrév.	Sapotaceae
Manilkara obovata	(Sabine & G. Don) J.H. Hemsl.	Sapotaceae
Maprounea membranacea	Pax & K. Hoffm.	Euphorbiaceae
Maranthes chrysophylla	(Oliv.) Prance	Chrysobalanaceae
Maranthes glabra	(Oliv.) Prance	Chrysobalanaceae
Mareyopsis longifolia	(Pax) Pax & K. Hoffm.	Euphorbiaceae
Margaritaria discoidea	(Baill.) G.L. Webster	Phyllanthaceae
Markhamia lutea	(Benth.) K. Schum.	Bignoniaceae
Massularia acuminata	(G. Don) Bullock ex Hoyle	Rubiaceae
Memecylon afzelii	G. Don	Melastomataceae
Microdesmis puberula	Hook. f. ex Planch.	Pandaceae
Microdesmis zenkeri	Pax	Pandaceae
Milicia excelsa	(Welw.) C.C. Berg	Moraceae
Millettia laurentii	De Wild.	Fabaceae
Millettia sanagana	Harms	Fabaceae
Mitragyna stipulosa	(DC.) Kuntze	Rubiaceae
Monodora myristica	(Gaertn.) Dunal	Annonaceae
Monodora tenuifolia	Benth.	Annonaceae
Musanga cecropioides	R. Br. ex Tedlie	Urticaceae
Myrianthus arboreus	P. Beauv.	Urticaceae
Nauclea diderrichii	(De Wild.) Merr.	Rubiaceae

Nauclea pobeguinii	(Hua ex Pobég.) Merr.	Rubiaceae
Nesogordonia papaverifera	(A. Chev.) Capuron ex N. Hallé	Malvaceae
Ochna calodendron	Gilg & Mildbr.	Ochnaceae
Odyendyea gabonensis	(Pierre) Engl.	Simaroubaceae
Omphalocarpum elatum	Miers	Sapotaceae
Omphalocarpum lecomteanum	Pierre ex Engl.	Sapotaceae
Oncoba echinata	Oliv.	Salicaceae
Oncoba gilgiana	Sprague	Salicaceae
Oncoba glauca	(P. Beauv.) Planch.	Salicaceae
Oncoba welwitschii	Oliv.	Salicaceae
Ongokea gore	(Hua) Pierre	Olacaceae
Ophiobotrys zenkeri	Gilg	Salicaceae
Oxyanthus speciosus	DC.	Rubiaceae
Pancovia pedicellaris	Radlk. & Gilg	Sapindaceae
Panda oleosa	Pierre	Pandaceae
Parinari excelsa	Sabine	Chrysobalanaceae
Parkia bicolor	A. Chev.	Fabaceae
Pauridiantha callicarpoides	(Hiern) Bremek.	Rubiaceae
Pauridiantha efferata	N. Hallé	Rubiaceae
Pauridiantha floribunda	(K. Schum. & K. Krause) Bremek.	Rubiaceae
Pausinystalia macroceras	(K. Schum.) Pierre	Rubiaceae
Pentaclethra macrophylla	Benth.	Fabaceae
Pentadesma butyracea	Sabine	Clusiaceae
Persea americana	Mill.	Lauraceae
Petersianthus macrocarpus	(P. Beauv.) Liben	Lecythidaceae
Phyllocosmus africanus	(Hook. f.) Klotzsch	Ixonanthaceae
Phyllocosmus sessiliflorus	Oliv.	Ixonanthaceae
Picralima nitida	(Stapf) T. Durand & H. Durand	Apocynaceae
Piptadeniastrum africanum	(Hook. f.) Brenan	Fabaceae
Plagiostyles africana	(Müll. Arg.) Prain	Euphorbiaceae
Pouteria altissima	(A. Chev.) Baehni	Sapotaceae
Pouteria pierrei	(A. Chev.) E.O. Beal	Sapotaceae
Pseudospondias microcarpa	(A. Rich.) Engl.	Anacardiaceae
Psidium guajava	L.	Myrtaceae
Pteleopsis hylodendron	Mildbr.	Combretaceae
Pterocarpus mildbraedii	Harms	Fabaceae
Pterocarpus soyauxii	Taub.	Fabaceae
Pterygota bequaertii	De Wild.	Malvaceae
Pycnanthus angolensis	(Welw.) Warb.	Myristicaceae
Quassia undulata	(Guill. & Perr.) D. Dietr.	Simaroubaceae
Raphia monbuttorum	Drude	Arecaceae
Raphia regalis	Becc.	Arecaceae
Rauvolfia caffra	Sond.	Apocynaceae

Rauvolfia vomitoria	Wennberg	Apocynaceae
Rhabdophyllum bracteolatum	(Gilg) Farron	Ochnaceae
Ricinodendron heudelotii	(Baill.) Pierre ex Pax	Euphorbiaceae
Rinorea longifolia	De Wild.	Violaceae
Rinorea oblongifolia	(C.H. Wright) Marquand ex Chipp	Violaceae
Rinorea spongiocarpa	Achound.	Violaceae
Rinorea subsessilis	M. Brandt	Violaceae
Rinorea welwitschii	Kuntze	Violaceae
Rothmannia lateriflora	(K. Schum.) Keay	Rubiaceae
Rothmannia lujae	(De Wild.) Keay	Rubiaceae
Santiria trimera	(Oliv.) Aubrév.	Burseraceae
Sapium ellipticum	(Hochst.) Pax	Euphorbiaceae
Schrebera arborea	A. Chev.	Oleaceae
Scottellia klaineana	Pierre	Achariaceae
Sorindeia grandifolia	Engl.	Anacardiaceae
Spathodea campanulata	P. Beauv.	Bignoniaceae
Staudtia kamerunensis	Warb.	Myristicaceae
Sterculia tragacantha	Lindl.	Malvaceae
Streblus usambarensis	(Engl.) C.C. Berg	Moraceae
Strephonema pseudo-cola	A. Chev.	Combretaceae
Strombosia grandifolia	Hook. f.	Olacaceae
Strombosia pustulata	Oliv.	Olacaceae
Strombosia scheffleri	Engl.	Olacaceae
Strombosia zenkeri	Engl.	Olacaceae
Strombosiopsis tetrandra	Engl.	Olacaceae
Symphonia globulifera	L. f.	Clusiaceae
Synsepalum brevipes	(Baker) T.D. Penn.	Sapotaceae
Synsepalum dulcificum	(Schumach. & Thonn.) Daniell	Sapotaceae
Synsepalum longecuneatum	De Wild.	Sapotaceae
Syzygium guineense	(Willd.) DC.	Myrtaceae
Syzygium rowlandii	Sprague	Myrtaceae
Tabernaemontana citrifolia	L.	Apocynaceae
Tabernaemontana crassa	Benth.	Apocynaceae
Tapura africana	Oliv.	Dichapetalaceae
Teclea afzelii	Engl.	Rutaceae
Terminalia superba	Engl. & Diels	Combretaceae
Tessmannia africana	Harms	Fabaceae
Tetracera alnifolia	Willd.	Dilleniaceae
Tetracera stuhlmanniana	Gilg	Dilleniaceae
Tetrapleura tetraptera	(Schumach. & Thonn.) Taub.	Fabaceae
Tetrorchidium didymostemon	(Baill.) Pax & K. Hoffm.	Euphorbiaceae
Treculia africana	Decne. ex Trécul	Moraceae
Trema orientalis	(L.) Blume	Cannabaceae

Tricalysia anomala	E.A. Bruce	Rubiaceae
Tricalysia crepiniana	De Wild. & T. Durand	Rubiaceae
Tricalysia discolor	Brenan	Rubiaceae
Trichilia monadelpha	(Thonn.) J.J. de Wilde	Meliaceae
Trichilia prieuriana	A. Juss.	Meliaceae
Trichilia rubescens	Oliv.	Meliaceae
Trichilia tessmannii	Harms	Meliaceae
Trichilia welwitschii	C. DC.	Meliaceae
Trichoscypha acuminata	Engl.	Anacardiaceae
Trichoscypha arborea	A. Chev.	Anacardiaceae
Tridesmostemon omphalocarpoides	Engl.	Sapotaceae
Trilepisium madagascariense	DC.	Moraceae
Triplochiton scleroxylon	K. Schum.	Malvaceae
Turraeanthus africana	(Welw. ex C. DC.) Pellegr.	Meliaceae
Uapaca acuminata	(Hutch.) Pax & K. Hoffm.	Phyllanthaceae
Uapaca guineensis	Müll. Arg.	Phyllanthaceae
Uapaca paludosa	Aubrév. & Leandri	Phyllanthaceae
Uapaca staudtii	Pax	Phyllanthaceae
Uapaca vanhouttei	De Wild.	Phyllanthaceae
Uvariopsis dioica	(Diels) Robyns & Ghesq.	Annonaceae
Vepris louisii	G.C.C. Gilbert	Rutaceae
Vitex grandifolia	Gürke	Lamiaceae
Vitex rivularis	Gürke	Lamiaceae
Vitex thyrsiflora	Baker	Lamiaceae
Vitex zenkeri	Gürke	Lamiaceae
Xylopia aethiopica	(Dunal) A. Rich.	Annonaceae
Xylopia hypolampra	Mildbr.	Annonaceae
Xylopia parviflora	(Guill. & Perr.) Engl. & Diels	Annonaceae
Xylopia quintasii	Pierre ex Engl. & Diels	Annonaceae
Xylopia rubescens	Oliv.	Annonaceae
Zanthoxylum gilletii	(De Wild.) P.G. Waterman	Rutaceae
Zanthoxylum heitzii	(Aubrév. & Pellegr.) P.G.Waterman	Rutaceae

Figure 2.

Selected species found in the Dja Faunal Reserve (1). (Photos: TLP Couvreur)

a: *Monodora myristica* (Annonaceae)
b: *Amphimas pterocarpoides* (Fabaceae)

Figure 3.

Selected species from the Dja Faunal Reserve (2). (Photos: a, b: TLP Couvreur; c, d: B Sonké)

a: *Greenwayodendron suaveolens* (Annonaceae)
b: *Annickia affinis* (Annonaceae)
c: *Rothmannia lateriflora* (Rubiaceae)
d: *Pauridiantha floribunda* (Rubiaceae)

Of the 54 families Fabaceae, Rubiaceae and Malvaceae were the most species rich (Table 2) whereas Fabaceae, Phyllantaceae and Ochnaceae were the most abundant families in terms of individuals sampled (Table 3, Fig. 4, Suppl. material 3). Finally, *Tabernaemontana crassa* (Apocynaceae) was the most abundant species recorded for the reserve with 633 individuals tagged (Table 4). Species diversity and abundance per family for each transect is given in Table 5.

Table 2.

Ten most species rich families in the Dja Faunal Reserve (excluding non identified taxa (sp.)).

Position	Family	Species richness
1	Fabaceae	37
2	Rubiaceae	24
3	Malvaceae	23

4	Euphorbiaceae	18
5	Sapotaceae	16
6	Annonaceae	15
7	Meliaceae	14
8	Phyllanthaceae	13
9	Putranjivaceae	11
10	Clusiaceae	9

Table 3.

Ten most abundant families in terms of individuals inventoried.

Family	**Family abundance**
Fabaceae	1203
Phyllanthaceae	1011
Olacaceae	830
Annonaceae	826
Euphorbiaceae	794
Apocynaceae	775
Meliaceae	605
Rubiaceae	446
Burseraceae	436
Malvaceae	396

Table 4.

Twenty most abundant species in the Dja Faunal Reserve.

Position	**Species**	**Species abundance**
1	*Tabernaemontana crassa*	633
2	*Petersianthus macrocarpus*	382
3	*Santiria trimera*	349
4	*Greenwayodendron suaveolens*	332
5	*Uapaca guineensis*	330
6	*Uapaca paludosa*	260
7	*Strombosiopsis tetrandra*	240
7	*Pentaclethra macrophylla*	240
7	*Plagiostyles africana*	240
8	*Desbordesia glaucescens*	210
9	*Trichilia rubescens*	206
10	*Dichostemma glaucescens*	197
11	*Rinorea oblongifolia*	189
12	*Anonidium mannii*	181
13	*Strombosia pustulata*	172
14	*Heisteria trillesiana*	156

15	*Coelocaryon preussii*	152
16	*Carapa procera*	136
17	*Anthonotha macrophylla*	134
18	*Corynanthe pachyceras*	131
19	*Trichoscypha acuminata*	128
20	*Antidesma laciniatum*	124

Table 5.

Tree diversity and abundance among the nine transects in the Dja Faunal Reserve. Family and species are ordered alphabetically.

Family/species										
Plot number	**L1**	**L2**	**L3**	**L4**	**L5**	**L6**	**L7**	**L8**	**L9**	**Total**
Achariaceae		**2**	**2**	**1**		**2**		**1**		**8**
Buchnerodendron speciosum								1		1
Lindackeria echinata						1				1
Scottellia klaineana		2	2	1		1				6
Agavaceae	**2**	**1**	**1**			**1**				**5**
Dracaena arborea	2	1	1			1				5
Anacardiaceae	**61**	**60**	**43**	**42**	**26**	**32**	**32**	**22**	**21**	**339**
Antrocaryon klaineanum	1			1					1	3
Antrocaryon micraster									1	1
Lannea welwitschii		1		1	2	1	4	2	3	14
Pseudospondias microcarpa	14	3	6	3	2	6	3		2	39
Sorindeia grandifolia	19	29	16	13	5	4	7		3	96
Sorindeia sp.	6	4	6	4	4	6	1	11	4	46
Trichoscypha acuminata	20	22	15	17	13	15	11	8	7	128
Trichoscypha arborea	1	1		3			6	1		12
Anisophylleaceae	**1**			**2**	**2**	**2**		**3**		**10**
Anopyxis klaineana	1			2	2	2		3		10
Annonaceae	**136**	**112**	**103**	**69**	**75**	**97**	**64**	**99**	**71**	**826**
Annickia affinis	9	17	9	5	7	10	11	14	6	88
Anonidium mannii	53	22	19	3	21	14	9	13	27	181
Cleistopholis glauca		1		4	1	5				11
Cleistopholis patens	5	5	4	4	6	4	4	2	2	36
Duguetia staudtii	4	3	5	3	4	4	2	2	2	29
Greenwayodendron suaveolens	46	37	42	28	22	45	27	55	30	332
Hexalobus crispiflorus	6	3	1	1	1	1	1			14
Monodora myristica					1					1
Monodora tenuifolia	1	3		2	1	2				9
Uvariopsis dioica	1	3	2	8						14
Xylopia aethiopica	2	2	3		2	3	2			14
Xylopia hypolampra		1						1		2

Xylopia parviflora		4	2		3	2				11
Xylopia quintasii	6	6	12	7	5	2	7	9	3	57
Xylopia rubescens	1	4	4	2		5	1		1	18
Xylopia sp.	2	1		2	1			3		9
Apocynaceae	**73**	**145**	**36**	**79**	**133**	**124**	**71**	**82**	**32**	**775**
Alstonia boonei	5	5	1	4	10	7	5	6	2	45
Funtumia africana									1	1
Funtumia elastica	2	5	2	1	16	25	6	5	2	64
Landolphia sp.				3	2					5
Picralima nitida	2	2		4	5	2	1	1		17
Rauvolfia caffra	1							1		2
Rauvolfia vomitoria			1	1		2		1		5
Strophanthus sp.						1				1
Tabernaemontana citrifolia		1								1
Tabernaemontana crassa	63	132	32	66	100	87	59	67	27	633
Tabernanthe sp.								1		1
Arecaceae			**10**	**2**	**17**	**38**	**1**		**25**	**93**
Raphia monbuttorum			10	2	17	38	1			68
Raphia regalis									25	25
Asteraceae							**1**			**1**
Vernonia sp.							1			1
Bignoniaceae	**2**	**2**	**1**	**8**	**3**	**8**	**3**	**1**	**3**	**31**
Fernandoa adolfi-friderici	1	2	1	1		2		1		8
Markhamia lutea	1			7	3	6			2	19
Spathodea campanulata							3		1	4
Boraginaceae	**1**			**1**	**2**	**1**	**2**	**2**		**9**
Cordia aurantiaca				1	2	1				4
Cordia platythyrsa	1						2	2		5
Burseraceae	**64**	**63**	**50**	**43**	**46**	**51**	**30**	**40**	**49**	**436**
Canarium schweinfurthii	1	1			1	2	2	2		9
Dacryodes buettneri					10	1				11
Dacryodes edulis	17	6	2	4	10	14	2	1	4	60
Dacryodes klaineana				1						1
Dacryodes sp.	1		4		1					6
Santiria trimera	45	56	44	38	24	34	26	37	45	349
Calophyllaceae	**6**	**4**	**7**	**2**	**4**	**4**	**6**	**3**	**3**	**39**
Mammea africana	6	4	7	2	4	4	6	3	3	39
Cannabaceae	**69**	**28**	**13**	**10**	**11**	**35**	**24**	**9**	**16**	**215**
Celtis adolfi-friderici									1	1
Celtis gomphophylla			1							1
Celtis tessmannii	19	17	5	5	11	7	19	8	11	102
Celtis zenkeri	50	11	7	5		28	5	1	1	108
Trema orientalis									3	3

Celastraceae		**8**	**7**	**5**	**3**	**7**				**30**
Salacia sp.		8	7	5	3	7				30
Centroplacaceae	**6**	**6**	**12**	**4**		**1**			**5**	**34**
Centroplacus glaucinus	6	6	12	4		1			5	34
Chrysobalanaceae	**17**	**11**	**7**	**12**	**3**		**6**	**4**	**19**	**79**
Acioa sp.			1		1					2
Maranthes chrysophylla			1	8			2		14	25
Maranthes glabra	12	4	3	2			2	2	1	26
Maranthes sp.	5	4	2	2	1		1	1	2	18
Parinari excelsa		2			1		1	1	2	7
Parinari sp.		1								1
Clusiaceae	**22**	**20**	**38**	**16**	**8**	**5**	**19**	**19**	**15**	**162**
Allanblackia floribunda	13	5	6	8	6	1	8	2	10	59
Allanblackia gabonensis								1		1
Garcinia gnetoides			2					4		6
Garcinia kola	1									1
Garcinia mannii	4	12	9	8	2	2	5	2	1	45
Garcinia punctata									1	1
Garcinia smeathmannii			11							11
Garcinia sp.		2						1		3
Pentadesma butyracea							2	1		3
Symphonia globulifera	4	1	10			2	4	8	3	32
Combretaceae	**3**	**8**	**2**	**10**	**12**	**5**	**6**	**4**	**5**	**55**
Combretum sp.		5	1	2						8
Pteleopsis hylodendron	1		1	4	6		1	1	1	15
Strephonema pseudo-cola						1				1
Strephonema sp.		1				3				4
Terminalia superba	2	2		4	6	1	5	3	4	27
Dichapetalaceae		**1**								**1**
Tapura africana		1								1
Dilleniaceae		**2**		**5**		**3**				**10**
Tetracera alnifolia		1				3				4
Tetracera stuhlmanniana		1		5						6
Ebenaceae	**17**	**14**	**3**	**3**	**17**	**16**	**10**	**10**	**14**	**104**
Diospyros bipindensis	1						3		1	5
Diospyros cinnabarina					3					3
Diospyros conocarpa		1								1
Diospyros crassiflora				1			3	2	7	13
Diospyros hoyleana	4	4	2		5	5	1	6		27
Diospyros sp.	4	4	1	1	7	2	1	2	1	23
Diospyros suaveolens	8	5		1	2	9	2		5	32
Euphorbiaceae	**32**	**82**	**80**	**84**	**100**	**29**	**133**	**139**	**81**	**760**
Cavacoa quintasii				17						17

Croton oligandrus					1					1
Crotonogyne preussii						1				1
Dichostemma glaucescens	12	37	38	32	55	4	13		6	197
Discoglypremna caloneura	4		2	5	4	3	3		1	22
Elaeophorbia grandifolia					1					1
Hymenocardia lyrata	1			2	1				7	11
Hymenocardia sp.			1		1					2
Klaineanthus gaboniae		5	6	1	7	11	3	11	13	57
Macaranga barteri						2			3	5
Macaranga occidentalis		2		2						4
Macaranga sp.		4	2		2		1	1	2	12
Macaranga spinosa	11	10	2	1	12	4	12		1	53
Maprounea membranacea							3			3
Maprounea sp.									1	1
Mareyopsis longifolia		21	28	21	5		1	22	1	99
Plagiostyles africana	1	2		1	4		86	103	43	240
Ricinodendron heudelotii	3				1	4	2	2	3	15
Sapium ellipticum		1	1	1	1					4
Tetrorchidium didymostemon				1	5		9			15
Fabaceae	**181**	**156**	**164**	**123**	**130**	**107**	**157**	**84**	**101**	**1203**
Afzelia bella						1				1
Afzelia bipindensis					1			2	1	4
Albizia adianthifolia	3	2	1		6	2	3			17
Albizia ferruginea						1				1
Albizia glaberrima	1	3	1			1	3	4		13
Albizia gummifera							3		4	7
Albizia sp.	5	1			1				1	8
Albizia zygia		1	1				1		1	4
Amphimas ferrugineus	2									2
Amphimas pterocarpoides	1			1		1		2	1	6
Angylocalyx pynaertii	8	6	13	10	3	9	13	1	12	75
Angylocalyx sp.		1	1	1						3
Anthonotha cladantha	7	13	18			1				39
Anthonotha fragrans								3		3
Anthonotha macrophylla	10	26	38	19	10	12	7	10	2	134
Anthonotha sp.							1	1		2
Balanites wilsoniana		1								1
Baphia sp.									1	1
Calpocalyx dinklagei	8	8	13	20	10	10	3	12	5	89
Cylicodiscus gabunensis	3	5	1	1	5		1	2	2	20
Detarium macrocarpum	1	1	1	3	3		2		1	12
Dialium bipindense			1							1
Dialium dinklagei	4	2	1		1					8

Dialium guineense		1		1		1	6	3	3	15
Dialium zenkeri	3	3	15	16	8	8	6	1	2	62
Distemonanthus benthamianus	15	4	2	1	13	7				42
Entada gigas	2	5	1	3		5				16
Erythrophleum suaveolens	4	6	1	6	6	8	2	3		36
Gilbertiodendron dewevrei							52	1		53
Gossweilerodendron joveri		1								1
Hylodendron gabunense	19	12	8	5	9	8	9	3	4	77
Hymenostegia afzelii					1					1
Millettia laurentii			2							2
Millettia sanagana					2					2
Millettia sp.	1			2	1					4
Newtonia sp.							1			1
Oddoniodendron sp.									1	1
Parkia bicolor					3	1	1			5
Pentaclethra macrophylla	44	31	31	24	29	14	19	25	23	240
Piptadeniastrum africanum	7		1	1	1	2	9	2	7	30
Pterocarpus mildbraedii	16	12	1	3		4	2		3	41
Pterocarpus soyauxii	15	7	7	5	10	10	7	4	11	76
Tessmannia africana			4			1	6	5	15	31
Tetrapleura tetraptera	2	4	1	1	7				1	16
Hypericaceae							**3**			**3**
Harungana madagascariensis							3			3
Irvingiaceae	**34**	**40**	**49**	**62**	**42**	**43**	**34**	**44**	**37**	**385**
Desbordesia glaucescens	13	31	25	43	25	28	12	16	17	210
Irvingia excelsa			1						1	2
Irvingia gabonensis	11	4	15	8	10	4	12	10	8	82
Irvingia grandifolia	4	2	2	3	2	5	1	3	3	25
Irvingia robur							1			1
Irvingia sp.							1			1
Klainedoxa gabonensis	3	2	6	8	5	6	5	13	7	55
Klainedoxa microphylla	3	1					2	2	1	9
Ixonanthaceae			**4**					**1**	**3**	**8**
Oubanguia sp.			1							1
Phyllocosmus africanus								1	1	2
Phyllocosmus sessiliflorus			3							3
Phyllocosmus sp.									2	2
Lauraceae	**4**	**5**	**3**	**3**	**3**	**6**	**5**	**2**	**6**	**37**
Beilschmiedia sp.	4	5	3	3	2	6	1	2	6	32
Persea americana					1		4			5
Lecythidaceae	**101**	**47**	**19**	**8**	**81**	**51**	**34**	**20**	**21**	**382**
Petersianthus macrocarpus	101	47	19	8	81	51	34	20	21	382
Lepidobotryaceae	**15**	**21**	**12**	**5**	**4**	**5**	**7**	**13**	**2**	**84**

Lepidobotrys staudtii	15	21	12	5	4	5	7	13	2	84
Loganiaceae	**1**					**1**	**1**			**3**
Strychnos sp.	1					1	1			3
Malvaceae	**39**	**56**	**45**	**45**	**55**	**35**	**63**	**49**	**31**	**418**
Bombax brevicuspe						1	3	5		9
Bombax buonopozense	1	1					2	2		6
Ceiba pentandra	2			1	1		1		2	7
Chlamydocola chlamydantha	1		4	2	2	2	1		1	13
Cola acuminata		6	9		13	1	3	5		37
Cola altissima								1		1
Cola ballayi		3			3		4		6	16
Cola flavo-velutina				1						1
Cola lateritia	4	5	3	1	11	6	6	2		38
Cola sp.	8	4	10	16	1	1	7	12	2	61
Cola verticillata									1	1
Desplatsia chrysochlamys	4	12	4	7	9	6	6		1	49
Desplatsia dewevrei								3		3
Duboscia macrocarpa	6	11	11	10	4	9	11	6	8	76
Eribroma oblongum				2	1	2	3	1		9
Glyphaea brevis		1			5					6
Grewia brunnea	2									2
Grewia coriacea		2								2
Grewia oligoneura			1	2						3
Grewia sp.		2	1				1	4		8
Leptonichia sp.	1	1			1					3
Nesogordonia papaverifera							1		1	2
Octolobus sp.								1		1
Pterygota bequaertii	3	1						3		7
Pterygota sp.								1	1	2
Sterculia tragacantha	7	7	2	2	4	7	11	3	4	47
Triplochiton scleroxylon				1			3		4	8
Melastomataceae									**3**	**3**
Memecylon afzelii									3	3
Meliaceae	**97**	**98**	**57**	**23**	**56**	**65**	**71**	**67**	**71**	**605**
Carapa procera	36	27	19	1	16	22	5	7	3	136
Entandrophragma angolense	4			1	2	2				9
Entandrophragma candollei	4	2		1	4	3	5			19
Entandrophragma cylindricum	2	2	1	2		5		3	2	17
Entandrophragma sp.	4	2								6
Guarea cedrata	2	1			2	1	10	2	18	36
Guarea thompsonii	3	1		1	1		8		6	20
Khaya ivorensis		1								1
Lovoa trichilioides	7	10	6	2	1	4	4		2	36

Trichilia monadelpha		2		2			11	1	9	25
Trichilia prieuriana					2	1				3
Trichilia rubescens	33	46	24	8	26	26	25		18	206
Trichilia sp.	1	1	1	3	2	1	2	3	1	15
Trichilia tessmannii								49	1	50
Trichilia welwitschii		3					1			4
Turraeanthus africana	1		6	2				2	11	22
Moraceae	**75**	**17**	**7**	**9**	**10**	**3**	**21**	**4**	**30**	**176**
Ficus exasperata	2						7		2	11
Ficus mucuso							4	1	6	11
Ficus sur									1	1
Milicia excelsa	1		1	2	4		2		2	12
Streblus usambarensis			6	7					15	28
Treculia africana	7	5			4	2	2	3	2	25
Trilepisium madagascariense	65	12			2	1	6		2	88
Myristicaceae	**65**	**19**	**19**	**9**	**41**	**13**	**65**	**29**	**48**	**308**
Coelocaryon botryoides	1									1
Coelocaryon preussii	38	5	7	2	17	5	39	11	28	152
Pycnanthus angolensis	8	6	3	3	9	1	9	2	8	49
Staudtia kamerunensis	18	8	9	4	15	7	17	16	12	106
Myrsinaceae						**1**				**1**
Embelia sp.						1				1
Myrtaceae	**5**	**6**	**4**	**9**	**2**	**4**	**3**	**7**	**8**	**48**
Eugenia sp.	4	2	3	3		1		6	4	23
Psidium guajava							1			1
Syzygium guineense						1				1
Syzygium rowlandii		4	1	6	2	2	2	1	4	22
Syzygium sp.	1									1
Ochnaceae	**4**	**1**	**4**	**6**	**1**		**5**	**2**	**3**	**26**
Ochna calodendron							2			2
Rhabdophyllum bracteolatum	4	1	4	6	1		3	2	3	24
Olacaceae	**95**	**82**	**108**	**82**	**104**	**80**	**73**	**106**	**100**	**830**
Heisteria trillesiana	41	16	22	7	51	16	2		1	156
Heisteria zimmereri	2	4		1			26	24	35	92
Ongokea gore	5	1	4	2	4	1	2	2	1	22
Strombosia grandifolia	1	1	2	1		2	9	4	9	29
Strombosia pustulata	13	7	30	27	19	25	7	18	26	172
Strombosia scheffleri	4	16	21	9	1	14	5	12	1	83
Strombosia sp.		1				1				2
Strombosia zenkeri			5		27	2				34
Strombosiopsis tetrandra	29	36	24	35	2	19	22	46	27	240
Oleaceae				**1**						**1**
Schrebera arborea				1						1

Pandaceae	**9**	**10**	**6**	**12**	**6**	**13**	**8**	**8**	**14**	**86**
Microdesmis puberula				1						1
Microdesmis sp.	4	5	2		3	4	1		7	26
Microdesmis zenkeri			1							1
Panda oleosa	5	5	3	11	3	9	7	8	7	58
Passifloraceae		**4**			**4**	**1**	**9**	**1**		**19**
Barteria nigritana subsp. fistulosa		4			4	1	9	1		19
Phyllanthaceae	**127**	**170**	**90**	**77**	**124**	**68**	**107**	**171**	**77**	**1011**
Antidesma laciniatum	8	22	18	31	4	4	15	16	6	124
Antidesma membranaceum	3	5	2	6		2	9	4	4	35
Antidesma sp.		2		1				4		7
Antidesma venosum					2	1		11	1	15
Bridelia grandis				2		1	9	4		16
Bridelia micrantha	9	2	2		1	1	1			16
Keayodendron bridelioides	5	4	3	5	4	4	1	7	2	35
Maesobotrya klaineana	6	11	3	4	5	4	3	8	4	48
Maesobotrya sp.									3	3
Margaritaria discoidea	1	1	1		3		13		1	20
Uapaca acuminata	16	21	2		19	3		7		68
Uapaca guineensis	18	72	37	24	12	22	31	87	27	330
Uapaca paludosa	60	30	22	4	74	25	13	12	20	260
Uapaca staudtii						1	3	10	6	20
Uapaca vanhouttei	1						9	1	3	14
Putranjivaceae	**35**	**17**	**84**	**61**	**13**	**4**	**30**	**46**	**30**	**320**
Drypetes aframensis		1		7			2			10
Drypetes africana								1		1
Drypetes afzelii				1						1
Drypetes capillipes				5						5
Drypetes chevalieri	6	1	10						5	22
Drypetes gossweileri	2		2							4
Drypetes klainei								5		5
Drypetes laciniata			1	1		1	1		3	7
Drypetes molunduana									1	1
Drypetes paxii	1									1
Drypetes sp.	22	14	66	41	12	2	27	40	20	244
Drypetes staudtii	4	1	5	6	1	1			1	19
Rhamnaceae	**1**	**7**	**17**	**13**	**4**	**3**	**2**	**3**	**5**	**55**
Lasiodiscus mannii	1	4	16	13	2	3		3	4	46
Maesopsis eminii		3	1		2		2		1	9
Rubiaceae	**34**	**29**	**64**	**61**	**30**	**40**	**59**	**57**	**72**	**446**
Aidia micrantha							17	12	52	81
Aoranthe cladantha	3			4	3	4		1	1	16
Aulacocalyx jasminiflora			2	1						3

Belonophora coriacea								2		2
Bertiera racemosa		1								1
Brenania brieyi	3	1	2	2			2	3	1	14
Canthium sp.	2	4	1		4	1		2	2	16
Corynanthe pachyceras	6	8	32	23	7	5	21	26	3	131
Cuviera cuvieroides	1	2	6	7	1	9				26
Cuviera sp.					1					1
Heinsia crinita	1	2	2	4						9
Leptactina involucrata							1			1
Massularia acuminata		1		1			1		1	4
Mitragyna stipulosa	2		5	2	1		1		4	15
Nauclea diderrichii					2		2	1	1	6
Nauclea pobeguinii							1	1	1	3
Oxyanthus speciosus	2						1			3
Pauridiantha callicarpoides				1						1
Pauridiantha efferata		1	5	1				2	2	11
Pauridiantha floribunda	3	1		5	1	1				11
Pausinystalia macroceras							1			1
Pavetta sp.	1									1
Rothmannia lateriflora	5	3	3		2	6	1	2		22
Rothmannia lujae	4	5	3	2	3	6	7	5	3	38
Tricalysia anomala				1		3	2			6
Tricalysia crepiniana				1	1					2
Tricalysia discolor	1		3	6	3	5	1		1	20
Tricalysia sp.					1					1
Rutaceae	**7**	**4**	**4**	**6**	**6**	**6**	**10**	**2**	**3**	**48**
Clausena anisata				1						1
Teclea afzelii						1	1			2
Vepris louisii				2			2			4
Zanthoxylum gilletii	7	3	4	3	6	5	3	2	3	36
Zanthoxylum heitzii		1					4			5
Salicaceae	**23**	**22**	**19**	**22**	**21**	**19**	**4**	**5**	**8**	**143**
Casearia barteri	11	6	16	2	4	2				41
Homalium discophylum	4	7		9	4	4	3	4		35
Homalium le-testui							1			1
Homalium sp.			2	1	1				2	6
Oncoba echinata	3	1								4
Oncoba gilgiana									1	1
Oncoba glauca	2	6	1	8	12	12		1	5	47
Oncoba sp.	1			2						3
Oncoba welwitschii						1				1
Ophiobotrys sp.	2									2
Ophiobotrys zenkeri		2								2

Sapindaceae	**33**	**34**	**23**	**67**	**14**	**35**	**34**	**21**	**9**	**270**
Allophylus africanus							4			4
Blighia sapida	18	13	8	8	6	19	2	5	2	81
Blighia sp.								1		1
Blighia welwitschii	3	11		12		1	9	6	5	47
Chytranthus atroviolaceus				1						1
Chytranthus macrobotrys									1	1
Chytranthus sp.	6	1	1	8	3	5	7	1		32
Eriocoelum macrocarpum	4	8	8	2		1		1		24
Lecaniodiscus cupanioides	2	1		5		2	9	7	1	27
Pancovia pedicellaris			6	31	5	7	3			52
Sapotaceae	**26**	**17**	**43**	**22**	**7**	**12**	**16**	**5**	**17**	**165**
Afrosersalisia sp.	3		1							4
Autranella congolensis			1							1
Baillonella toxisperma	3	2	1			1	1			8
Chrysophyllum africanum				1	2		3	1	3	10
Chrysophyllum boukokoense	1	1	1		1		1			5
Chrysophyllum lacourtianum	9	7	1	2	2	9	3	1		34
Chrysophyllum pruniforme	1		2		1	1				5
Chrysophyllum sp.									1	1
Letestua sp.	1									1
Manilkara letouzei	3	1	5	7			4	1		21
Manilkara obovata			2							2
Manilkara sp.		1		1						2
Omphalocarpum elatum	1						1			2
Omphalocarpum lecomteanum				2						2
Pouteria altissima		1		1		1		1	2	6
Pouteria pierrei								1		1
Pouteria sp.									1	1
Synsepalum brevipes				1					3	4
Synsepalum dulcificum			23							23
Synsepalum longecuneatum	2	3	3	3			2		1	14
Tridesmostemon omphalocarpoides	2	1	3	4	1		1		6	18
Simaroubaceae	**8**	**2**	**1**	**1**	**2**	**3**		**6**	**5**	**28**
Odyendyea gabonensis	8	2	1	1	2	2		6	5	27
Quassia undulata						1				1
Urticaceae	**17**	**14**	**1**	**5**	**12**	**6**	**45**	**2**	**59**	**161**
Musanga cecropioides	12			2	7	1	21		57	100
Myrianthus arboreus	5	14	1	3	5	5	24	2	2	61
Verbenaceae	**3**	**5**	**1**	**4**		**1**	**6**	**2**	**3**	**25**
Vitex grandifolia						1				1
Vitex rivularis	2	5		3			1			11
Vitex sp.	1		1					2	2	6

Vitex thyrsiflora				1						1
Vitex zenkeri							5		1	6
Violaceae	**26**	**16**	**18**	**13**	**3**	**11**	**30**	**50**	**28**	**195**
Rinorea longifolia	1									1
Rinorea oblongifolia	23	15	18	12	3	11	30	49	28	189
Rinorea spongiocarpa		1								1
Rinorea subsessilis				1				1		2
Rinorea welwitschii	2									2
Vochysiaceae	**2**	**4**	**18**		**1**	**3**	**1**		**2**	**31**
Erismadelphus exsul	2	4	18		1	3	1		2	31
Total	**1579**	**1472**	**1299**	**1147**	**1238**	**1100**	**1311**	**1245**	**1155**	**11546**

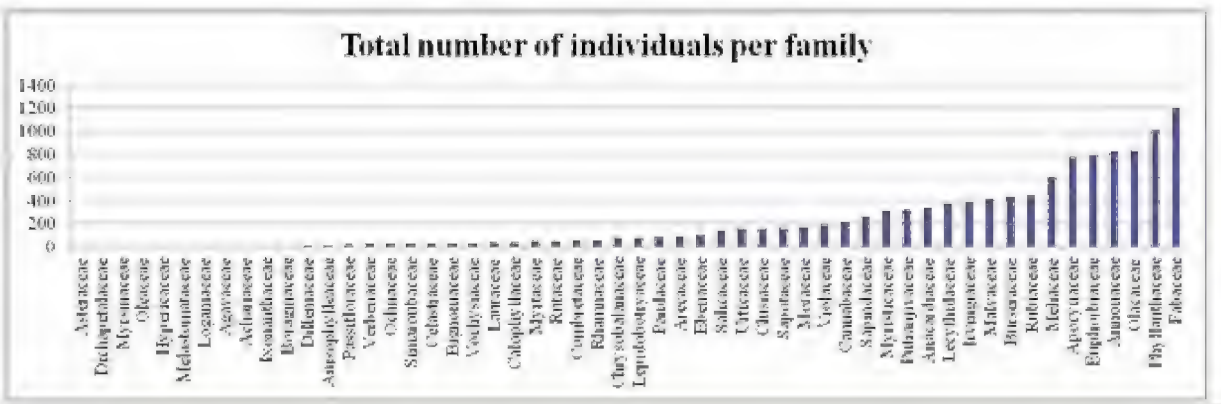

Figure 4.

Plant family abundance in the Dja Faunal Reserve. This table was produced from Suppl. material 3.

Traits coverage

The only trait measured and published in this dataset is the diameter at breast height for each individual found in Suppl. material 1.

Temporal coverage

Data range: 1993 8 01 - 1995 8 31.

Usage rights

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IP rights notes: This dataset can be freely used provided it is cited

Data resources

Data package title: Djatrees: Trees of the Dja Faunal Reserve

Resource link: https://sites.google.com/site/tlpcouvreur/home/ressources

Number of data sets: 1

Data set name: Djatrees

Data format: excel sheet

Description: List of all individuals (including sp.) per transect collected in the nine transects.

Column label	Column description
Species_name	Name of the identified species
Family_name	Plant family for the species follwing APG III
Transect_number	Transect number
Diameter	Diameter at breast hight (in cm)

Author contributions

BS collected the data; BS & TC analyzed and curated the data; BS & TC wrote the paper.

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Supplementary materials

Suppl. material 1: List of all individuals collected in all 9 transects of the Dja Faunal Resreve.

Authors: Sonké & Couvreur

Data type: List of individuals collected in each transcet in the Dja Faunal Reserve

Brief description: This is the raw dataset with indication of each individual collected as well as its diameter. This dataset is also availible at https://sites.google.com/site/tlpcouvreur/home/ressources.

Filename: raw_data_Dja.xls - Download file (924.00 kb)

Suppl. material 2: Vegetation distribution across the transects in the Dja Faunal Reserve Cameroon

Authors: Sonké & Couvreur

Data type: excel sheet

Filename: Vegetation types dja.xls - Download file (61.50 kb)

Suppl. material 3: Individual abundances per family

Authors: Sonké & Couvreur

Data type: excel sheet

Brief description: This sheet provides the number of individuals per family for all the species collected in the Dja Faunal Reserve. First coloum: Family; second coloum: number of individuals. this table was used to generate figure 2 of the article.

Filename: family_abundance.xls - Download file (215.50 kb)